

**This Memorandum of Understanding** signed and dated at Hamilton in the Province of Ontario, Canada, this   10   day of   January  , 2005

*Between*

Her Majesty the Queen in Right of Canada as represented by

The Minister of Natural Resources  
and  
The Minister of Environment  
(Hereinafter “Government of Canada”)

*Of the First Part*

And

The Canadian Steel Producers Association  
(Hereinafter “the Industry”)

*Of the Second Part*

A Memorandum of Understanding Respecting the Development of  
Climate Change Commitments for 2008-2012

WHEREAS The Government of Canada and the Canadian Steel Industry (consisting of the companies listed in Annex I) are in agreement that action will be taken to curb the production of greenhouse gas (GHG) emissions;

AND WHEREAS The Government of Canada has stated this country’s resolve to address its climate change commitments under the Kyoto Protocol;

AND WHEREAS The Industry and the Government of Canada recognize that reducing GHG emissions in the production of iron and steel will require a concerted effort on the part of both the Government of Canada and the Industry to identify actions and put in place a plan of research and technology development to deliver results, both in the near term and extending well beyond the end of the first Kyoto commitment period in 2012;

AND WHEREAS The Industry is committed to building on existing achievements to improve energy efficiency and reduce emissions intensity through improvements to manufacturing methods, which support the Industry’s commitment to sustainable development, as represented by, for example, extensive recycling activities;

AND WHEREAS The Government of Canada acknowledges that the Industry has made significant progress in reducing GHG emissions and improving energy efficiency since 1990;

AND WHEREAS actions to reduce or prevent emissions of GHG emissions can also help to achieve clean air goals;

AND WHEREAS the Parties agree on the importance of the concomitant goals of attracting new investment to Canada, stimulating economic growth, and ensuring the continued competitiveness of the Industry as progress is made to reduce GHG emissions associated with the production of iron and steel. In this regard, the Parties recognize the

cyclical nature of steel markets, and the variability of emissions intensity due to capacity utilization.

NOW THEREFORE THE PARTIES HERETO SIGNIFY THEIR UNDERSTANDING AS FOLLOWS:

1. The Parties will work together to develop sector GHG emission intensity targets for iron and steel production, consisting of the activities set out in Annex II, for the first Kyoto Commitment Period, that being 2008-2012. The Government of Canada will develop targets and permit allocations to deliver, on average, a reduction of 15 percent in emission intensity from the Government of Canada's 2010 Business As Usual forecast for the Industry provided that these targets:
  - a) do not impair the competitive position of the Industry in the relevant markets; and
  - b) do not result in a disproportionate burden for the steel sector compared with the sectoral targets of other large final emitters.

Annex III sets out the factors to be considered in a confidential assessment of the impact of the target on the competitive position of the Industry.

In assessing disproportionate burden, the nature of GHG emissions in the steel sector and the technological ability to address these emissions will be examined.

2. The Parties acknowledge that process emissions related to the use of carbon as a metal reductant constitute a substantial portion of the GHG emissions associated with the production of steel in primary manufacturing processes. This issue along with other GHG emission related activities in steel making require a comprehensive effort to develop alternative technologies and processes. In this regard, the Government of Canada and the Industry are jointly participating in an international effort known as the "CO<sub>2</sub> Breakthrough Programme" coordinated under the auspices of the International Iron and Steel Institute (IISI). The Government of Canada will contribute \$300,000 over the next two years to this international effort, joining the governments and/or industries of the European Union, the United States, Japan, Korea and Brazil in seeking solutions to CO<sub>2</sub> emissions. The Canadian Industry, for its part, will contribute to this effort through supporting activities.

Phase I of this international research effort is aimed at the identification of promising technologies that will yield radical CO<sub>2</sub> reductions and that can be promoted to Phase II, the pilot phase, of the program. Further funding considerations for Canadian participation in Phase II will be examined in accordance with funding criteria under the Technology and Innovation Research and Development Initiative in 2005.

3. With respect to improvements in energy efficiency, the Parties will work together to build on the results of the energy benchmarking study under Natural Resources Canada's Canadian Industry Program for Energy Conservation (CIPEC), which will serve to identify near-term opportunities to improve energy efficiency and reduce related GHG emissions while improving the overall competitiveness of the Industry. This exercise will also complement ongoing efforts by those members of the Industry who are working with Natural Resources Canada's CANMET Energy Technology Centre to improve the efficiency of combustion activities through discrete projects and process integration studies.
4. The Government of Canada will ensure that the Industry will have flexible options for meeting any proposed GHG emissions targets. Such flexible options will include:
  - reductions achieved through activities of the operator that are not covered under any GHG emission reduction targets for large final emitters, including reductions in demand for electricity; and
  - other qualifying domestic and international offsets.

The Industry will have the option of exercising the \$15/tonne CO<sub>2</sub>e price assurance proposed by the Government of Canada, and GHG emission intensities below corresponding target GHG intensities will generate GHG emission permits that can be banked or transferred.

5. The Industry confirms its intention to work with suppliers, customers and other partners to achieve and maintain GHG reductions that would not be achievable by the Industry working alone. Efforts will include, but may not be limited to, an increase in the supply of steel slag that could be made available by the Industry for use as a quality cement additive that could help to reduce GHG emissions in cement production in Canada.
6. The Parties recognize that there exists significant potential in the Industry to undertake combined heat and power projects as well as clean energy offsets projects that will serve to reduce reliance on the energy grids and provide opportunities for further integrated energy efficiencies. The Government of Canada commits to working with the Industry and other stakeholders to devise an appropriate policy framework to encourage the realization of this potential.
7. The Parties confirm their intention to work together in establishing a one-window GHG reporting system that will ensure transparency and public accountability respecting GHG emissions while serving to minimize the reporting burden on the Industry and protecting confidential information.
8. The Parties confirm that this MOU reflects their mutual desire to work together to address the challenges posed by climate change. This MOU does not constitute or establish a legally binding agreement or commit either Party, or their successors, to a particular course of conduct.
9. The Government of Canada, recognizing that innovation and technological advance are key to significant GHG emission reductions over time, will investigate methods to integrate into compliance options an incentive to increase qualifying research and development to reduce GHG emission intensity.
10. The Government of Canada confirms by way of this Memorandum of Understanding that Parties to this Memorandum will be dealt with no less favorably with respect to the provisions covered herein than (i) other Parties to this Memorandum; (ii) Parties within the sector who are parties to other Memoranda with the Government of Canada; (iii) non-Parties within the sector; or (iv) would otherwise be the result under legislation. The Government of Canada confirms its intention that the Parties will not be subject to any requirements for GHG emission reductions additional to those described herein that may otherwise be sought by the Government of Canada under the system for large final emitters during the first Kyoto commitment period.
11. The Parties acknowledge that this MOU is supported in principle by those steel producing provinces and territories particularly described in Annex IV. The Parties agree to work in an open and collaborative manner with the supporting provinces and territories, while ensuring that all commercially sensitive information is protected. The Parties confirm that it shall remain open for all provinces and territories to signify their support by amending the said Annex.
12. In order to realize the commitments made in this Agreement the parties agree to pursue the work program set out in Annex V.

On behalf of Her Majesty the Queen  
In Right of Canada:

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The Honourable R. John Efford  
Minister of Natural Resources

On behalf of the Industry:

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Don Pether  
CEO of the CSPA

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The Honourable Stéphane Dion  
Minister of Environment

## ANNEX I

Algoma Steel Inc.

Dofasco Inc.

Gerdau Ameristeel Corporation, Whitby Mill

Gerdau Ameristeel Corporation, Cambridge Mill

Gerdau Ameristeel, MRM Special Sections Inc.

IPSCO Saskatchewan Inc.

Ispat Sidbec Inc.

Ivaco Inc.

Stelco Inc.

## ANNEX II

The Parties will work together to develop emission intensity targets for steel-manufacturing activities up to and including hot rolling. The specific activities covered are:

- sintering
- coking
- iron and steel production
- hot rolling
- power generation

## **ANNEX III**

### **Assessing Impact of Climate Change Targets on Competitiveness**

Natural Resources Canada's Large Final Emitters Group will work with the Industry to assess the impact of the proposed target on their competitive position in relevant markets.

This assessment will include, but will not be limited to:

#### **Market Definition and Characterization**

- A definition of the relevant market, including identification of the products for which there is a concern of loss of competitiveness.
- A list of the facilities engaged, and the average age of the equipment used, in the production of the product in question.
- A characterization of the scope and structure of the market, including: a list of relevant competitors; consideration of the transportation constraints for the products in question; and distribution and dynamics of market share among relevant competitors.
- For relevant products, sufficient production, import and export data to appreciate long term market evolution, as well as changes over the business cycle.
- Analysis of exports/production, import penetration and net trade exposure.
- Analysis of competitors' positions in key relevant export markets.

#### **Industry Intensity Target and Industry Capability**

- The GHG emissions intensity target for identified products as a group. For integrated operations, the manufacture of a sector's final products may involve more than one targeted activity: these cases would require the calculation of an effective target on a final product basis as a group.
- An assessment of the characteristics of the sector's GHG emissions. Amount of GHG emissions that do not vary with output.
- An assessment of the ability to meet the target, including consideration of technological opportunities and constraints.

#### **Evaluation of Sector Cost Structure**

- A cost of production comparison, furnished by a reputable source, examining the Canadian sector and relevant competitors. This comparison should break out the proportion of costs associated with fuel (specify), electricity and transportation. This comparison should permit the construction of a "cost curve" for the relevant market, with cumulative capacity on the x-axis and cost per tonne of product on the y-axis.
- An analysis of expected incremental costs associated with climate change regulation. This consideration should include: direct costs of compliance; administrative burden; likely increases in input costs; likely changes in product prices. This analysis must also consider likely incremental regulatory costs faced by producers in competing jurisdictions.
- An understanding of product prices in relevant markets. Sufficient data to provide a representative understanding of how prices are distributed is required. This likely involves about five years' price data. A representative period will be chosen.

#### **Evaluation of Sector Profitability**

- An analysis of sector-level return on capital employed (ROCE) and weighted average costs of capital (WACC) across Canadian facilities producing relevant products.
- This analysis should include sufficient data to provide an understanding of ROCE and WACC across the business cycle, as well as a comparison across time of Canadian facilities relative to those facilities in competing jurisdictions.

- Since many of the companies operating in targeted sectors are multinationals, a profitability analysis must focus on a measure of return associated with on-the-ground operations, on a sectoral basis.
- This analysis should fully describe underlying assumptions regarding:
  - operations-level costs;
  - how general corporate overhead costs are allocated to facilities,
  - how facility-level revenues are reconstructed,
  - how capital is defined for the purpose of the analysis; and
  - how the weighted average cost of capital is arrived at.
- A transparent analysis of how the relationship between ROCE and WACC may be influenced by incremental costs associated with climate change obligations, either in-house abatement or permit purchases, including consideration of how operators in competing jurisdictions will be affected.

### **Protecting Confidentiality**

The Parties recognize that Natural Resources Canada's Large Final Emitters Group and Industry will, out of necessity, deal regularly with information that either Party may consider confidential. This information may be related to, among other things, industrial processes, financial issues, and competitiveness. Working within the provisions of applicable legislation, the Parties and the supporting Provinces and Territories in Annex V, will co-operate on developing protocols for the requisitioning, delivery, storage and return of confidential information.



## ANNEX IV

The Province of Ontario, although not Party to “A Memorandum of Understanding Respecting the Development of Climate Change Commitments for 2008-2012”, hereby expresses its support for the following:

- Ontario recognizes that climate change represents a global environmental and socio-economic issue of unprecedented scope, and that given the global nature of climate change, an unprecedented diversity of policies and measures will have to be implemented by all orders of government;
- Ontario recognizes that climate change presents a significant risk and is committed to work with other levels of government and industry to help meet Canada's Kyoto commitments;
- Ontario recognizes that reducing greenhouse gases (GHGs) in the production of iron and steel will require a concerted effort on the part of both governments and the industry to identify actions and put in place a plan of research and technology development to deliver results, both in the near term and extending well beyond the end of the first Kyoto commitment period in 2012;
- Ontario supports actions and measures that will help reduce emissions of smog causing pollutants as well as greenhouse gases, for example, energy conservation and co-generation;
- Ontario recognizes that additional action is necessary and that the results of such action may vary within and across sectors, including opportunities for job creation and implications for competitiveness and therefore supports a process that strives to determine what are reasonable greenhouse gas emission reduction targets for the steel industry, that also:
  - a) do not impair the competitive position of the Industry in the relevant markets; and,
  - b) do not result in a disproportionate burden for the steel sector compared with the sectoral targets of other large final emitters;
- Ontario supports the work towards establishing a one-window GHG reporting system that will ensure transparency and public accountability respecting GHG emissions while serving to minimize the reporting burden on the Industry and protecting confidential information;
- Ontario recognizes that the federal government has obligations to achieve Canada's targets under the Kyoto Protocol and Ontario has its own obligations for provincial air quality issues. and will assist the federal government in meeting Canada's climate change obligations.
- Ontario agrees to work together in an open and collaborative manner with the Parties, while ensuring all confidential information is protected.

On behalf of the Her Majesty the Queen  
In Right of Ontario

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The Honourable Leona Dombrowsky  
Minister of Environment

**ANNEX V**  
**Work Program**

The Government of Canada and the Industry agree to work together on the following activities.

Date	Activity
January - June 2005	<ul style="list-style-type: none"><li>• Initiate Phase I of the International Iron &amp; Steel Institute (IISI) CO<sub>2</sub>e Breakthrough Program</li><li>• Continue with target setting exercise with a view to reaching agreement on target design</li><li>• Develop confidentiality procedures for reporting company confidential data</li><li>• Initiate competitiveness assessment</li><li>• Initiate Phase II of the Canadian Steel Producers Association/Office of Energy Efficiency Steel Benchmarking Study</li><li>• Investigate cogeneration opportunities</li><li>• Investigate clean energy offsets opportunities</li><li>• Continue discussions for the treatment of offsets</li><li>• Initiate development of reporting procedures and system</li><li>• Complete competitiveness assessment</li><li>• Initiate process for examination of Phase II of the IISI Steel CO<sub>2</sub>e Breakthrough Program</li><li>• Explore offsets opportunities</li><li>• Complete targets</li></ul>